

**Recommendation:** Develop a process for transatlantic communication of critical events that may signify new resistance trends with global public health implications

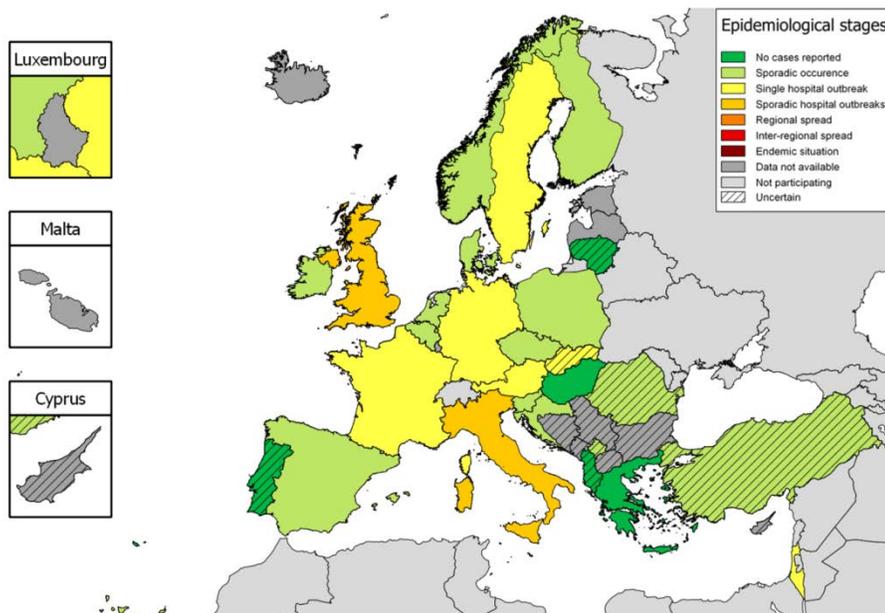
**Implementers:** Centers for Disease Control and Prevention (CDC), European Centre for Disease Prevention and Control (ECDC)

The aim of these regular teleconferences is to facilitate communication and exchange of information regarding relevant issues, new developments and other important matters for both the U.S. and EU.

### An Update of New Delhi metallo-beta-lactamase (NDM)-producing Bacteria in the U.S. and EU

#### 1. ECDC update:

**Figure 1: NDM-producing *Enterobacteriaceae* in 38 European countries based on self-assessment by national experts, March 2013.**



National experts from 38 countries were asked to self-assess the level of occurrence and spread of carbapenemase-producing *Enterobacteriaceae* (CPE) in their respective country. The self-assessment was based on an epidemiological staging system, previously established in 2010 during a workshop involving experts from European countries (Grundmann et al., 2010). In some countries, the epidemiological stage might not represent the exact extent of the spread of CPE as it is a subjective judgment by national experts. The results presented here reflect the uncertainty at the time of the survey (countries highlighted with dashes).

The report "[Carbapenemase-producing bacteria in Europe: interim results from the European Survey on carbapenemase-producing Enterobacteriaceae \(EuSCAPE\) project](#)" was published by ECDC on 15 November 2013 and includes maps depicting the occurrence of carbapenemase-producing *Enterobacteriaceae* by type of carbapenemase in 38 European countries. As of March 2013 and based on the self-assessment of national experts, *Klebsiella pneumoniae* carbapenemase (KPC)-producing strains had attained the widest dissemination, whereas NDM-producing strains, although responsible for occasional hospital outbreaks in few countries, had not reached such a wide dissemination in European countries. OXA-48 was the most frequently reported carbapenemase in Belgium, France and Malta, and increasing numbers of OXA-48-positive isolates were also reported in Ireland, Spain and the United Kingdom.

Figure 1 is extracted from this report and shows the situation of European countries for NDM-producing *Enterobacteriaceae* as of March 2013. Since the report, however, several publications have reported isolated cases and outbreaks of NDM-1-producing *Enterobacteriaceae* in countries from southeast Europe, namely Bulgaria, Greece, Romania and Turkey.

#### References:

1. Grundmann H, Livermore DM, Giske CG, Canton R, Rossolini GM, Campos J, et al. Carbapenem-non-susceptible *Enterobacteriaceae* in Europe: Conclusions from a meeting of national experts. *Euro Surveill* 2010 Nov 18;15(46). pii: 19711.
2. Poirel L, Savov E, Nazli A, Trifonova A, Todorova I, Gergova I, et al. Outbreak Caused by NDM-1- and RmtB-producing *Escherichia coli* in Bulgaria. *Antimicrob Agents Chemother* 2014;58(4):2472-4.
3. Székely E, Damjanova I, Jánvári L, Vas KE, Molnár S, Bilca DV, et al. First description of *bla*<sub>NDM-1</sub>, *bla*<sub>OXA-48</sub>, *bla*<sub>OXA-181</sub> producing *Enterobacteriaceae* strains in Romania. *Int J Med Microbiol* 2013;303(8):697-700.
4. Giakkoupi P, Tryfinopoulou K, Kontopidou F, Tsonou P, Golegou T, Souki H, et al. Emergence of NDM-producing *Klebsiella pneumoniae* in Greece. *Diagn Microbiol Infect Dis* 2013;77(4):382-4.
5. Poirel L, Yilmaz M, Istanbulu A, Arslan F, Mert A, Bernabeu S, Nordmann P. Spread of NDM-1-producing *Enterobacteriaceae* in a neonatal intensive care unit, Istanbul, Turkey. *Antimicrob Agents Chemother* 2014 Feb 18. [Epub ahead of print]

